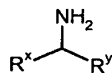


CLAIMS

1. A process for the preparation of a compound of Formula (1):



Formula (1)

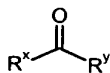
wherein:

$\text{R}^x$  is optionally substituted aryl; and

$\text{R}^y$  is optionally substituted hydrocarbyl;

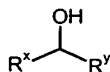
which comprises the steps:

- (a) reducing a compound of Formula (2):



Formula (2)

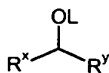
to a compound of Formula (3):



Formula (3)

wherein  $\text{R}^x$  and  $\text{R}^y$  are as defined for Formula (1):

- (b) reacting a compound of Formula (3) with a leaving group donor, to give a compound of Formula (4);



Formula (4)

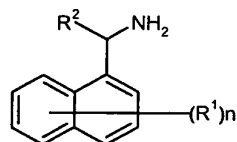
wherein:

$\text{R}^x$  and  $\text{R}^y$  are as defined for Formula (1); and

OL is a leaving group:

(c) reacting a compound of Formula (4) with ammonia to give a compound of Formula (1).

2. A process according to claim 1 for the preparation of a compound of Formula (5):



Formula (5)

wherein:

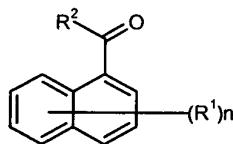
$R^1$  is a substituent;

$R^2$  is optionally substituted hydrocarbyl; and

$n$  is 0 to 4:

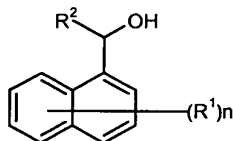
which comprises the steps:

(a) reducing a compound of Formula (6):



Formula (6)

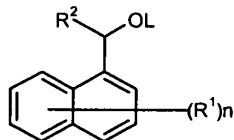
to a compound of Formula (7):



Formula (7)

wherein  $R^1$ ,  $R^2$  and  $n$  are as defined for Formula (5):

(b) reacting a compound of Formula (7) with a leaving group donor, to give a compound of Formula (8);



Formula (8)

wherein:

$R^1$ ,  $R^2$  and  $n$  are as defined for Formula (5);

OL is a leaving group:

5 (c) reacting a compound of Formula (8) with ammonia to give a compound of Formula (5).

3. A process according to claim 2 where  $R^2$  is optionally substituted  $C_{1-4}$ alkyl.

4. A process according to claim 3 where  $R^2$  is methyl.

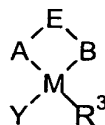
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5. A process according to any one of the preceding claims wherein  $n$  is 0.

6. A process according to any one of the preceding claims where step (a) is carried out in the presence of a catalyst.

15

7. A process according to claim 6 where the catalyst is of Formula (A):



Formula (A)

20

wherein:

$R^3$  represents a neutral optionally substituted hydrocarbyl, a neutral optionally substituted perhalogenated hydrocarbyl, or an optionally substituted cyclopentadienyl ligand;

25 A represents  $-NR^4$ -,  $-NR^5$ -,  $-NHR^4$ -,  $-NR^4R^5$  or  $-NR^5R^6$  where  $R^4$  is H,  $C(O)R^6$ ,  $SO_2R^6$ ,  $C(O)NR^6R^{10}$ ,  $C(S)NR^6R^{10}$ ,  $C(=NR^{10})SR^{11}$  or  $C(=NR^{10})OR^{11}$ ,  $R^5$  and  $R^6$  each independently represents an optionally substituted hydrocarbyl, perhalogenated hydrocarbyl or an optionally substituted heterocyclyl group, and  $R^{10}$  and  $R^{11}$  are each independently hydrogen or a group as defined for  $R^6$ ;

30 B represents  $-O$ -,  $-OH$ ,  $OR^7$ -,  $-S$ -,  $-SH$ ,  $SR^7$ -,  $-NR^7$ -,  $-NR^8$ -,  $-NHR^8$ -,  $-NR^7R^8$ -,  $-NR^7R^9$ -,  $-PR^7$ - or  $-PR^7R^9$  where  $R^8$  is H,  $C(O)R^9$ ,  $SO_2R^9$ ,  $C(O)NR^9R^{12}$ ,  $C(S)NR^9R^{12}$ ,  $C(=NR^{12})SR^{13}$  or  $C(=NR^{12})OR^{13}$ ,  $R^7$  and  $R^9$  each independently represents an optionally substituted hydrocarbyl, perhalogenated hydrocarbyl or an optionally substituted heterocyclyl group, and  $R^{12}$  and  $R^{13}$  are each independently hydrogen or a group as defined for  $R^9$ ;

35 E represents a linking group;

M represents a metal capable of catalysing transfer hydrogenation; and

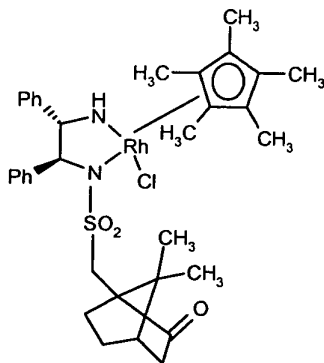
Y represents an anionic group, a basic ligand or a vacant site;

provided that when Y is not a vacant site that at least one of A or B carries a hydrogen atom.

- 5

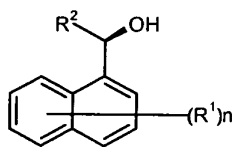
9. A process according to either claim 7 or claim 8 wherein M, the metal, is rhodium present in valence state III and R<sup>3</sup> is an optionally substituted cyclopentadienyl ligand.

- 10



- 15

12. A process according to any one of the preceding claims wherein the product of step (a) is a compound of Formula (9):



### Formula (9)

wherein:

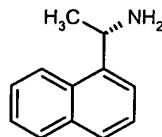
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13. A process according to any one of claims 1 to 5 where in step (b) the leaving group donor is a compound of formula  $R^{14}SO_2X$ , where  $R^{14}$  is an optionally substituted

alkyl, optionally substituted aryl or an optionally substituted heteroaryl group and X is a halogen.

14. A process according to claim 13 where in step (b) the leaving group donor is methanesulphonyl chloride.

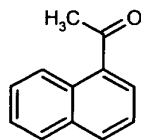
15. A process according to either claim 1 or claim 2 for the preparation of a compound of Formula (10):



Formula (10)

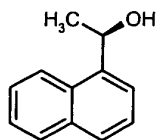
which comprises the steps:

(a) reducing a compound of Formula (11):



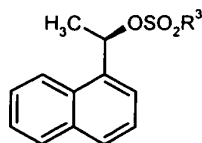
Formula (11)

to a compound of Formula (12):



Formula (12)

(b) reacting a compound of Formula (12) with a compound of formula  $R^3SO_2X$ , in the presence of a base, to give a compound of Formula (13);



Formula (13)

wherein:

$R^3$  is optionally substituted  $C_{1-4}$ alkyl; and

X is halogen:

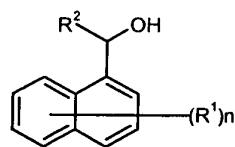
5 (c) reacting a compound of Formula (13) with ammonia to give a compound of Formula (10).

16. A process according to claim 15 where step (a) is carried out in the presence of a catalyst of Formula (A) as described in claim 7.

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17. A process according to claim 15 wherein the compound of Formula (10) is purified by diastereomeric salt resolution using (L)-tartaric acid or (L)-chloropropionic acid.

15 18. A process for the preparation of a stereoisomer of a compound of Formula (14):



Formula (14)

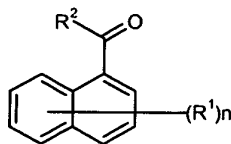
wherein:

$R^1$  is a substituent;

20  $R^2$  is optionally substituted hydrocarbyl; and

n is 0 to 4:

which comprises the transfer hydrogenation of a compound of Formula (6):



25

Formula (6)

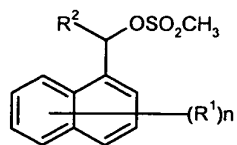
by a hydrogen donor in the presence of a catalyst of Formula (A) as described in claim 7.

19. A process for the diastereomeric salt resolution of (S)-1-naphthylethylamine which comprises mixing (S)-1-naphthylethylamine with (2R,3R)-tartaric acid or (S)-chloropropionic acid to form the corresponding diastereomeric salt.

20. A diastereomeric salt of (S)-1-naphthylethylamine with (2R,3R)-tartaric acid or (S)-chloropropionic acid.

35

21. A compound of Formula (15):



Formula (15)

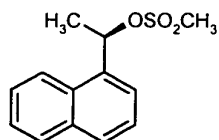
wherein:

$R^1$  is a substituent;

$R^2$  is optionally substituted hydrocarbyl; and

$n$  is 0 to 4.

22. A compound according to claim 21 of Formula (15) which is of Formula (16):



Formula (16)